STEPHEN P. SCHWARTZ, ed., *Naming, Necessity, and Natural Kinds*, Cornell University Press (Ithaca & London, 1977).

I am holding a key in my hand. Let us call any object that has just the physical properties — i.e., size, shape, hardness, malleability — this key happens to have at the present moment, a *K-object*. By this act of dubbing, we have added a general term to the English lexicon, or, at any rate, to the lexicon of that dialect of English whose speakers are the author and readers of this review. Note that our new term, ' K-object ' does not *mean* ' object that has just the physical properties this key has '. (Compare this case: A priest says, under appropriate conditions, ' I name this child *Alice* '; thereafter, among the members of a certain group of speakers, ' Alice ' is a name for the child he referred to as ' this child '; but ' Alice ' does not thereby come to *mean* ' this child ').

Let us now perform a second act of dubbing: let us call any object that has just the physical properties the lock set into my front door has, an *L-object*. Will a K-object open an L-object? This would seem to be an empirical question. To find out the answer, one would simply take a K-object (probably there is only one) and see whether it will open an L-object (probably there is only one). I'll tell you the answer: a K-object *will* open an L-object. Let us now consider the proposition that a K-object will open an L-object. What sort of proposition is it? Well for one thing, it's necessarily true: in every possible world a K-object will open an L-object. (In saying this, I assume it's a necessary truth that any two keys identical in their physical properties open the same locks, and any two locks identical in their physical properties are opened by the same keys). There are, of course, possible worlds in which the lock on my front door cannot be opened with a K-object, but these are worlds in which that lock is not an L-object. There are worlds in which my front-door key will not open an L-object, but these are worlds in which my front-door key is not a K-object. (Some of these worlds are worlds in which *this very key* will not open an L-object, say, because it — the key — has been bent. But if this key were bent, it would not be a K-object). Moreover, there are worlds in which I write a review verbally identical with this one, but in which, while writing its first two sentences, I hold the ignition key to my car in my hand. In *these* worlds, the *sentence* ' A K-object will open an L-object ' does not express a truth. Nonetheless the *proposition* I *in fact* referred to above as ' the proposition that a K-object will open an L-object ' is a necessary truth, just as the proposition that triangles have three sides is a necessary truth, despite the fact that there are possible worlds in which ' triangle ' means ' square '.

It's pretty clear that if what I have said is true, then much traditional philosophy of language and traditional metaphysics is wrong. When you had read as far as the first sentence of the second paragraph above, you knew what ' K-object ' and ' L-object ' *meant*: I had given you perfectly adequate definitions. Moreover, it was for you at that point an empirical question whether a K-object would open an L-object. But if the traditional philosophy of language and the traditional metaphysical doctrine of the nature of necessity are correct, then it follows that the sentence ' A K-object will open an L-object ' expresses a con·tingent proposition.

But is this not a strange case? Is this odd use of ostension not remote from the procedures by which general terms ordinarily get their meanings? One of the central theses of several of the essays making up the book under review is that it is not at all odd, that it is quite like the way general terms *normally* get their meanings. This view, which has become prominent during the last ten years or so, is, to a very large extent, the work of Saul Kripke and Hilary Putnam. (Despite the strong similarity between their positions, they appear to

have arrived at these positions independently). The two most important essays
in the book, in my opinion, are Kripke's « Identity and Necessity » and Putnam's
« Meaning and Reference ». These two brilliant papers stress the degree to which
ostensive definition is involved in the meaning of general terms like ' water ',
' tiger ', ' heat ', ' acid ', and ' pain '. Of course, Kripke and Putnam are not
so naive as to think that there was a moment in history when someone gave the
word ' water ' its meaning by pointing to some water and saying, « Let's call
this liquid, ' water ' ». But it seems to follow from their theories (or theory)
that if Martians with no previous experience of water were to say something
in Martian that could be translated as « Let's call this liquid, ' quaxel ' », while
indicating the content of a beaker of water, then ' quaxel ' would mean in
Martian just what ' water ' means in English. (Putnam, whose notion of meaning
is worked out in more detail than Kripke's, would qualify this statement in
certain ways that need not detain us). According to Putnam and Kripke, a general
term like ' water ' has a meaning such that it applies truly to whatever has
the same *underlying structure* as the « paradigms » (Putnam's word) use of which
was made initially to introduce the term, and this is the case whether or not
the speakers who first introduced the term knew anything about that structure.
(When we introduced the term ' L-object ', we introduced it in such a way that
it applies truly to anything having the same underlying structure — the same
internal configurations — as the lock on my front door, which was our paradigm.
Note that you and I don't know what this internal configuration is). Thus,
Aristotle knew nothing about the underlying structure of water; we know much;
our Martians may be imagined to know much more; but ' hydōr ', ' water ',
and ' quaxel ' mean the same. A Greek-Martian dictionary, compiled by the
scientifically omniscient Martians, may *correctly* pair ' hydōr ' and ' quaxel ', just
as a modern dictionary of Middle English may correctly pair ' whal ' and ' whale '
despite the fact that medieval English-speakers did not distinguish between fish
(in the modern sense) and aquatic mammals.

Now if we assume that the predicate ' is HOH ' applies to anything that
has the same underlying structure as water (being partly descriptive of that
underlying structure), then ' Water is HOH ' expresses a necessary truth: water
could not be other than HOH: being HOH is an *essential property* of water.
And this is the case despite the fact that it is an empirical discovery that water
is HOH. Thus, necessary truths that are not « merely verbal », and properties
that are essential in the fullest, old-fashioned metaphysical sense of the term,
have come once more onto the philosophical stage.

Moreover, according to the new theorists of necessity, it is not only stuffs
and kinds that have essential features, but individuals as well: It is not only
essential to, say, wood, that it contain cellulose (if our ideas about the underlying
structure of wood are correct), it is essential to *this table* that *it* be made of
wood (if it is in fact made of wood). Kripke's essay is an important contribution
to the discussion of the idea of properties essential to individuals.

Schwartz's collection (the import of the title of which I hope will now be
clear) is an excellent introduction to current thinking on these topics. Schwartz
is to be congratulated for the good philosophical taste he has shown in selecting
the essays that make up the book, and for his helpful Introduction.

In addition to the essays by Kripke and Putnam I have already mentioned
(and in addition to a second, related essay by Putnam, « Is Semantics Pos-
sible? », in which Putnam's important idea of a *stereotype* is introduced), the
book contains:

(a) Two important papers by Keith Donnellan, « Reference and Definite Descrip-
tions », and « Speaking of Nothing ». The first of these is a presentation of
Donnellan's famous distinction between « referential » and « attributive » (uses of)
definite descriptions. In the second, the « causal theory of proper names » is

introduced to describe and explain the « spread » of the use of a proper name
in a linguistic community. By extension (and this is what is particularly relevant
to the central theme of the book), it can be used to explain how it is that a
general term like ' water ' (or, better, ' uranium ') can be used by you and
me to refer to a stuff that (necessarily) has a certain underlying structure, even
though we have never been present when ostensive reference was made to it.
(Donnellan applies his theory to the problem of apparent « reference to the
non-existent »; hence his title).

(b) Two papers written earlier than the other papers in the book, « Essence
and Accident », by Irving Copi (1954), and « Natural Kinds », by W. V. O.
Quine (1969), that contain interesting anticipations of various features of Kripke's
and Putnam's ideas.

(c) Two recent essays that examine (respectively) the theories of Putnam and
Kripke in some detail: « Underlying Trait Terms », by William K. Goosens
(published for the first time in this collection), and « The Causal Theory of
Names », by Gareth Evans. Though these two papers are, it seems to me, the
weakest in the book, they are nonetheless well worth reading, not least for
the wealth of ingenious examples they contain.

(d) A fine paper by Alvin Plantinga, « Transworld Identity or Worldbound
Individuals », which dissolves the so-called « problem of transworld identity » by
exposing the confusions that led people to think there was such a problem.
« Possible worlds », though theoretically dispensable, are heuristically indispensable
in discussions of essence and necessity, and, given the prevalence of Philistine
sneering at philosophers who make use of them, it was wise of the editor to
include Plantinga's essay.

Three papers included in this book — Kripke's, Putnam's and Plantinga's —
are especially useful because they are doorways to three profound and beautiful
works that are (in my judgment) the most important contributions to philosophy
since the *Philosophical Investigations* and « On What There Is »: Kripke's « Nam-
ing and Necessity » (1), Putnam's « The Meaning of ' Meaning ' » (2), and
Plantinga's *The Nature of Necessity* (3).

The essays that Schwartz's collection comprises should be read by everyone
interested in metaphysics or in the philosophy of language. I would point out
that one who is interested in these subjects could most conveniently act on
this recommendation by acquiring a copy of the book.

Syracuse University

<div align="right">Peter van Inwagen</div>

FRANK JACKSON, *Perception: A Representative Theory*, Cambridge University Press,
1977. Pp. 180.

It would be hard to find a more intelligent defense of a representative theory
of perception. Most of this book is devoted to establishing the view that the
immediate objects of (visual) perception are always mental. Some philosophers
will choke on this conclusion, but it is hard to see just where to choke before
reaching the conclusion.

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(1) In *Semantics of Natural Language*, ed. by D. Davidson and G. Harman
(Reidel, 1972).
(2) In his collected *Philosophical Papers* (vol. II), (Cambridge, 1975).
(3) (Oxford, 1974). The reader is warned that the major English-language
reviews of this book (other than those in *Mind*, *Noûs*, and *The Philosophical
Review*) that have appeared as of this date (December, 1977) are wholly unreliable.